

Woodward 2001-0246

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IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

## Patent Application

Inventor(s)	Sheryl Leigh Woodward	Case Name	Woodward 2001-0246
Filing Date	1/24/2002	Serial No.	10/056,386
Examiner	Christina Y. Leung	Group Art Unit	2633
Title	System and Method for Monitoring and Controlling Light Propagation in an Optical Transmission System		

COMMISSIONER FOR PATENTS

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SIR:

## AMENDMENT

*Do not enter  
cc 11-1-05*

In response to an Office action dated July 1, 2005 please amend the above-identified application as follows:

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CE 11-1-05 Woodward 2001-0246

## IN THE CLAIMS:

## 1. (Currently Amended) An add multiplexer comprising:

an input port;

an optical circulator comprising a first port, a second port, and a third port, said first port of said optical circulator coupled to said input port;

an optical monitor mechanism coupled to said third port of said optical circulator;

a wavelength add mechanism having an input port X that is connected to said second port of said optical circulator, an input port Y and an output port Z, which wavelength add mechanism is adapted to direct substantially all of a signal's optical power that is applied to input port Y flowing out of its output port Z, leaving an errant signal fraction of said optical power flowing out of said input port Y and adapted to receive optical signals from said second port and to provide no optical signals to said second port;

a tunable signal source coupled to interposed between said input port Y and wavelength add mechanism, wherein said optical monitor mechanism is coupled to said third port of said optical circulator and to said tunable source thereby providing a feedback path that allows said errant signal fraction of said optical power flowing out of said input port X to influence the signal is applied to input port Y; and

an output port coupled to said output port Z wavelength add mechanism.

2. (Currently Amended) An add multiplexer of claim 1 wherein said optical monitor measures the optical power at said third port 3 of said optical circulator.

3. (Currently Amended) An add multiplexer of claim 1 wherein said optical monitor measures the wavelength of the light at said third port 3 of said optical circulator.

4. (Currently Amended) An add multiplexer of claim 1 wherein said optical monitor measures ~~both the~~ optical power versus wavelength.

5. (Canceled) .